

“Draft” High Level Listing of Personnel for IIF Engineering Services Contract

Labor Category	Description	Education/Experience
<p style="text-align: center;">Contract Lead Engineer</p>	<p>The lead engineer shall possess resource/personnel management skills. The personnel in this position shall possess an MS degree in Engineering or a Computer Science related field. The lead engineer shall manage a team of engineers and technical support personnel in executing contract tasking as defined in the IIF ES Contract Statement of Work. The lead engineer shall also be prepared to perform the following tasks:</p> <ul style="list-style-type: none"> • Meet with IIF FAA staff to discuss upcoming projects, staffing, scheduling and other facility issues. • Meet with lab customers to determine needed lab resources or to discuss technical issues related to their projects. • Manage laboratory resource and contract support personnel scheduling. • Coordinate lab schedule with users and contract support personnel. • Resolve lab schedule conflicts. • Provide the IIF ES Statement of Work specified deliverables 	<p>Individual must have a Masters Degree in applicable technical or business field of study and 15 or more years of relevant experience <u>OR</u> a Bachelors Degree in an applicable technical or business field of study and 20 or more years of relevant experience.</p> <p>Personnel for this category must also have a minimum of 15 years experience in the development, testing, and implementation of En Route and/or Oceanic NAS subsystems.</p>

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<p style="text-align: center;">Senior Systems Engineer</p>	<p>Personnel will perform task lead duties for lab operations and system engineering projects.</p> <p>Personnel should provide a comprehensive definition of all aspects of system engineering and system development from analysis of mission needs to verification of system performance. Personnel should be able to perform evaluations of problem solution alternatives as well as program risk and cost assessments. Experience with analog and digital communication systems is required.</p> <p>Personnel in this category should be familiar with the following specific subject matter:</p> <ul style="list-style-type: none"> • En Route and Oceanic NAS /ERAM/ATOP/Oceanic 21 Data Reduction and Analysis • NAS Simulation techniques and systems including the ERAM Graphical Scenario Generation Tool (GSGT) • FAA software development environments for DSR, ERAM, ATOP, EBUS, HNL, and ECG • Configuration and adaptation products for FAA systems including DSR, ERAM, ATOP, EBUS, HNL, and ECG • FAA Voice Communication Systems including Voice Switching Computer System (VSCS), Voice Training and Backup System (VTAB), and the En Route Training Voice Communication Tool (ETVCT) • Simulation Driver Interfacility and Radar DSR Simulator • Long Range and Short range RADAR technology • Automatic Dependant Surveillance – Broadcast (ADS-B) 	<p>Individual must have a Masters Degree in applicable technical or business field of study and 10 or more years of relevant experience <u>OR</u> a Bachelors Degree in an applicable technical or business field of study and 15 or more years of experience in software or systems engineering.</p> <p>The level of expertise required to fulfill this position shall include detailed knowledge of all NAS systems described in the previous column.</p>

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NAS Software Engineer	<p>Personnel in this category will debug and troubleshoot NAS related problems, develop/prototype NAS supports tools, and will perform ETVCT second level maintenance tasks.</p> <p>Personnel in this category should also be familiar with the following specific subject matter:</p> <ul style="list-style-type: none"> • En Route and Oceanic NAS /ERAM/ATOP/Oceanic 21 Data Reduction and Analysis • NAS Simulation techniques and systems including the ERAM Graphical Scenario Generation Tool (GSGT) • FAA software development environments for DSR, ERAM, ATOP, EBUS, HNL, and ECG • Configuration and adaptation products for FAA systems including DSR, ERAM, ATOP, EBUS, HNL, and ECG • FAA Voice Communication Systems including Voice Switching Computer System (VSCS), Voice Training and Backup System (VTAB), and the En Route Training Voice Communication Tool (ETVCT) • Simulation Driver Interfacility and Radar DSR Simulator • Long Range and Short range RADAR technology • Automatic Dependant Surveillance – Broadcast (ADS-B) 	<p>Individual must have a Masters Degree in applicable technical or business field of study and 15 or more years of experience in development and/or maintenance of NAS software, <u>OR</u> a Bachelors Degree in an applicable technical or business field of study and 20 or more years of experience in development and/or maintenance of NAS software.</p> <p>The level of expertise required to fulfill this position shall include detailed knowledge of all NAS systems described in the previous column.</p>

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Electronics Engineer	Personnel will perform laboratory maintenance and ETVCT second level hardware support duties. Personnel in this category shall be familiar with NAS systems and subsystems hardware including the DSR, ERAM, VSCS, ETVCT, and ATOP systems. Experience with analog and digital communication systems is preferred.	Individual must have a Bachelors Degree in an applicable technical field of study and 10 or more years of experience in electronics engineering.

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<p style="text-align: center;">Software Engineer</p>	<p>Personnel will perform laboratory operations tasks, ETVCT software second level maintenance, and prototype engineering and development. Experience with state-of-the art software development environments and current industrial trends in the computer field are required. Personnel should be able to apply this experience to integration and development activities.</p> <p>Experience should include the following subject matter:</p> <ul style="list-style-type: none"> • UNIX Operating Systems including Linux, AIX, and Sun Solaris • Integrated Development Enviornments (IDEs) including Visual Studio Version 6 and .Net, IBM VisualAge C++, and the JavaBeans IDEs • Structure programming languages including C/C++, Java, and Ada. • UNIX and Microsoft scripting languages including SED/AWK, PHP, Ksh, Perl, and Visual BASIC Script (VBS) • Relational DataBase Management Systems (RDMS) development using Structure Query Language (SQL). RBMS experience should include MySQL RDMS and Microsoft SOL Server • Web Development using XML, Cascading Style Sheets (CSS), PHP, Active Server Pages (ASP), and JavaScript • Configuration of network switching and routing devices 	<p>Individual must have a Masters Degree in an applicable technical field of study and 10 or more years of software engineering and development experience <u>OR</u> the individual must have a Bachelors Degree in an applicable technical field of study and 15 or more years of software engineering and development experience.</p>

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<p style="text-align: center;">LAN/WAN Administrator</p>	<p>Personnel will perform laboratory and facility network maintenance as well as participate in network related engineering studies.</p> <p>Personnel in this position shall have experience with hands-on network hardware and software engineering support including:</p> <ul style="list-style-type: none"> • Configuration of network switching and routing devices • Network traffic analysis and optimization • Experience with Simple Network Management Protocol (SNMP) as well as system and device Management Information Bases (MIBs) • Experience with network management applications including Tivoli Netview and Cicsoworks 	<p>Individual must have a Bachelors Degree in an applicable technical field of study and 10 or more years of relevant experience.</p> <p>Required Relevant experience for this category would be development and maintenance of PC based LAN and WAN systems, operating systems, Internet website administration, networking, and communications protocols.</p>
<p style="text-align: center;">Systems Engineer</p>	<p>Personnel will perform lab operations and maintenance tasks.</p> <p>Personnel shall have detailed knowledge of FAA NAS hardware and software systems including the ERAM and ATOP systems. Troubleshooting and problem resolution skills are required.</p>	<p>The individual must have at least a Bachelors Degree in an applicable technical field of study and 10 or more years of experience in systems engineering and/or test of FAA NAS systems.</p>
<p style="text-align: center;">Test Engineer</p>	<p>Personnel would perform lab operations and maintenance tasks.</p> <p>Personnel should also be able to analyze, develop and execute system test requirements, plans and procedures. Standard system debugging techniques for software and hardware is expected.</p>	<p>The individual must have at least a Bachelors Degree in an applicable technical field of study and five or more years of experience relating to integration and test of FAA NAS systems., <u>OR</u> 15 years of experience relating to integration and test of FAA NAS systems..</p>

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Computer Programmer	<p>Personnel will perform laboratory operations tasks, ETVCT software second level maintenance, and prototype software development.</p> <p>Personnel should be able to provide assessments regarding current, start-of-art and industrial trends in the computer field. Experience with state-of-the art software development environments and current industrial trends in the computer field are required. Personnel should have experience and knowledge with object oriented code, standard programming languages, web based tools, databases, and distributed systems including UNIX (including scripting languages), Java, Visual Basic, C/C++, and web based development</p>	<p>Individual must have at least a Bachelors Degree in an applicable technical field of study and three or more years of experience in software development, <u>OR</u> 10 years of experience in software development.</p> <p>Experience in development of FAA NAS systems is preferred.</p>
Computer System Analyst	<p>Personnel would provide engineering support for FAA and other senior staff members, support to facility users for laboratory configuration, initialization, and shutdown, support for test execution, as well as development and review of project documentation.</p> <p>Specific skills include knowledge automated documentation and office productivity tools.</p>	<p>Individual must have at least Bachelors Degree in an applicable technical field of study and 5 years of experience relating to engineering or systems support., <u>OR</u> 10 years of experience relating to engineering or systems support</p>
Configuration Management Specialist	<p>Personnel would be responsible for facility hardware configuration management.</p> <p>Skills should include the use of configuration management automation tools.</p>	<p>Individual must have at least a Bachelors Degree in an applicable technical field of study and 3 years experience in hardware/software configuration management of technical facilities, <u>OR</u> 10 years of experience in hardware/software configuration management of technical facilities.</p>

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Program Management Support Specialist	<p>Personnel would provide engineering support for FAA and other senior staff members.</p> <p>Relevant experience may include, but is not limited to, documentation graphics development, report preparation, and contract administration. Duties may include assistance in preparing facility management report, financial reports, and facility presentations.</p>	<p>Individual must have a bachelor's degree and 2 years experience.</p>
Air Traffic Control Specialist	<p>Personnel shall provide operational expertise in modern air traffic control principles and procedures.</p>	<p>Individual must have a Bachelors Degree in an applicable technical field of study and 10 or more years of operational Air Traffic experience.</p>